

SEQUENCE LISTING

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<120> METHODS AND REAGENTS RELATING TO INFLAMMATION AND APOPTOSIS

<130> WYTH-P01-001

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<150> 60/400,410

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<160> 20

<170> PatentIn version 3.2

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<211> 233

<212> PRT

<213> Homo sapiens

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Met Ser Thr Glu Ser Met Ile Arg Asp Val Glu Leu Ala Glu Glu Ala
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Leu Pro Lys Lys Thr Gly Gly Pro Gln Gly Ser Arg Arg Cys Leu Phe
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Leu Ser Leu Phe Ser Phe Leu Ile Val Ala Gly Ala Thr Thr Leu Phe
 35 40 45

Cys Leu Leu His Phe Gly Val Ile Gly Pro Gln Arg Glu Glu Ser Pro
 50 55 60

Arg Asp Leu Ser Leu Ile Ser Pro Leu Ala Gln Ala Val Arg Ser Ser
 65 70 75 80

Ser Arg Thr Pro Ser Asp Lys Pro Val Ala His Val Val Ala Asn Pro
 85 90 95

Gln Ala Glu Gly Gln Leu Gln Trp Leu Asn Arg Arg Ala Asn Ala Leu
 100 105 110

Leu Ala Asn Gly Val Glu Leu Arg Asp Asn Gln Leu Val Val Pro Ser
 115 120 125

Glu Gly Leu Tyr Leu Ile Tyr Ser Gln Val Leu Phe Lys Gly Gln Gly
 130 135 140

Cys Pro Ser Thr His Val Leu Leu Thr His Thr Ile Ser Arg Ile Ala
 145 150 155 160

Val Ser Tyr Gln Thr Lys Val Asn Leu Leu Ser Ala Ile Lys Ser Pro
 165 170 175

Cys Gln Arg Glu Thr Pro Glu Gly Ala Glu Ala Lys Pro Trp Tyr Glu
 180 185 190

Pro Ile Tyr Leu Gly Gly Val Phe Gln Leu Glu Lys Gly Asp Arg Leu
 195 200 205

Ser Ala Glu Ile Asn Arg Pro Asp Tyr Leu Asp Phe Ala Glu Ser Gly
 210 215 220

Gln Val Tyr Phe Gly Ile Ile Ala Leu
 225 230

<210> 2
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 <212> DNA
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<210> 3
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<400> 3

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Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
 20 25 30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
 35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
 50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
 65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
 85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
 100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
 115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
 130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
 145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
 165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
 180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
 195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
 210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
 225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
 245 250 255

Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
 260 265 270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
 275 280 285

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
 290 295 300

Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
 305 310 315 320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
 325 330 335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
 340 345 350

Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
 355 360 365

Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
 370 375 380

Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
 385 390 395 400

Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
 405 410 415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
 420 425 430

Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
 435 440 445

Pro Ala Pro Ser Leu Leu Arg
450 455

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gatagtgtgt gtccccaagg aaaatatatc caccctcaaa ataattcgat ttgctgtacc 180
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<210> 5
<211> 461

<212> PRT

<213> Homo sapiens

<400> 5

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Trp Ala Ala Ala His Ala Leu Pro Ala Gln Val Ala Phe Thr Pro Tyr
 20 25 30

Ala Pro Glu Pro Gly Ser Thr Cys Arg Leu Arg Glu Tyr Tyr Asp Gln
 35 40 45

Thr Ala Gln Met Cys Cys Ser Lys Cys Ser Pro Gly Gln His Ala Lys
 50 55 60

Val Phe Cys Thr Lys Thr Ser Asp Thr Val Cys Asp Ser Cys Glu Asp
 65 70 75 80

Ser Thr Tyr Thr Gln Leu Trp Asn Trp Val Pro Glu Cys Leu Ser Cys
 85 90 95

Gly Ser Arg Cys Ser Ser Asp Gln Val Glu Thr Gln Ala Cys Thr Arg
 100 105 110

Glu Gln Asn Arg Ile Cys Thr Cys Arg Pro Gly Trp Tyr Cys Ala Leu
 115 120 125

Ser Lys Gln Glu Gly Cys Arg Leu Cys Ala Pro Leu Arg Lys Cys Arg
 130 135 140

Pro Gly Phe Gly Val Ala Arg Pro Gly Thr Glu Thr Ser Asp Val Val
 145 150 155 160

Cys Lys Pro Cys Ala Pro Gly Thr Phe Ser Asn Thr Thr Ser Ser Thr
 165 170 175

Asp Ile Cys Arg Pro His Gln Ile Cys Asn Val Val Ala Ile Pro Gly
 180 185 190

Asn Ala Ser Met Asp Ala Val Cys Thr Ser Thr Ser Pro Thr Arg Ser
 195 200 205

Met Ala Pro Gly Ala Val His Leu Pro Gln Pro Val Ser Thr Arg Ser
 210 215 220

Gln His Thr Gln Pro Thr Pro Glu Pro Ser Thr Ala Pro Ser Thr Ser
 225 230 235 240

Phe Leu Leu Pro Met Gly Pro Ser Pro Pro Ala Glu Gly Ser Thr Gly
 245 250 255

Asp Phe Ala Leu Pro Val Gly Leu Ile Val Gly Val Thr Ala Leu Gly
 260 265 270

Leu Leu Ile Ile Gly Val Val Asn Cys Val Ile Met Thr Gln Val Lys
 275 280 285

Lys Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro
 290 295 300

Ala Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu
 305 310 315 320

Ile Thr Ala Pro Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser
 325 330 335

Ala Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly
 340 345 350

Val Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser
 355 360 365

Asp Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile
 370 375 380

Val Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln
 385 390 395 400

Ala Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro
 405 410 415

Lys Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser
 420 425 430

Gln Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro
 435 440 445

Leu Pro Leu Gly Val Pro Asp Ala Gly Met Lys Pro Ser
 450 455 460

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 <212> DNA
 <213> Homo sapiens

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<213> Homo sapiens

<400> 7

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Leu Phe Val Glu Ser Ser Leu Asp Lys Val Val Leu Ser Asp Ala Tyr
 35 40 45

Ala His Pro Gln Gln Lys Val Ala Val Tyr Arg Ala Leu Gln Ala Ala
 50 55 60

Leu Ala Glu Ser Gly Gly Ser Pro Asp Val Leu Gln Met Leu Lys Ile
 65 70 75 80

His Arg Ser Asp Pro Gln Leu Ile Val Gln Leu Arg Phe Cys Gly Arg
 85 90 95

Gln Pro Cys Gly Arg Phe Leu Arg Ala Tyr Arg Glu Gly Ala Leu Arg
 100 105 110

Ala Ala Leu Gln Arg Ser Leu Ala Ala Ala Leu Ala Gln His Ser Val
 115 120 125

Pro Leu Gln Leu Glu Leu Arg Ala Gly Ala Glu Arg Leu Asp Ala Leu
 130 135 140

Leu Ala Asp Glu Glu Arg Cys Leu Ser Cys Ile Leu Ala Gln Gln Pro
 145 150 155 160

Asp Arg Leu Arg Asp Glu Glu Leu Ala Glu Leu Glu Asp Ala Leu Arg
 165 170 175

Asn Leu Lys Cys Gly Ser Gly Ala Arg Gly Gly Asp Gly Glu Val Ala
 180 185 190

Ser Ala Pro Leu Gln Pro Pro Val Pro Ser Leu Ser Glu Val Lys Pro
 195 200 205

Pro Pro Pro Pro Pro Pro Ala Gln Thr Phe Leu Phe Gln Gly Gln Pro
 210 215 220

Val Val Asn Arg Pro Leu Ser Leu Lys Asp Gln Gln Thr Phe Ala Arg
225 230 235 240

Ser Val Gly Leu Lys Trp Arg Lys Val Gly Arg Ser Leu Gln Arg Gly
245 250 255

Cys Arg Ala Leu Arg Asp Pro Ala Leu Asp Ser Leu Ala Tyr Glu Tyr
260 265 270

Glu Arg Glu Gly Leu Tyr Glu Gln Ala Phe Gln Leu Leu Arg Arg Phe
275 280 285

Val Gln Ala Glu Gly Arg Arg Ala Thr Leu Gln Arg Leu Val Glu Ala
290 295 300

Leu Glu Glu Asn Glu Leu Thr Ser Leu Ala Glu Asp Leu Leu Gly Leu
305 310 315 320

Thr Asp Pro Asn Gly Gly Leu Ala
325

<210> 8
<211> 987
<212> DNA
<213> Homo sapiens

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 accgatccca atggcggcct ggccctag 987

<210> 9
 <211> 501
 <212> PRT
 <213> Homo sapiens

<400> 9

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Pro Gly Phe Ser Lys Thr Leu Leu Gly Thr Arg Leu Glu Ala Lys Tyr
20 25 30

Leu Cys Ser Ala Cys Lys Asn Ile Leu Arg Arg Pro Phe Gln Ala Gln
35 40 45

Cys Gly His Arg Tyr Cys Ser Phe Cys Leu Thr Ser Ile Leu Ser Ser
50 55 60

Gly Pro Gln Asn Cys Ala Ala Cys Val Tyr Glu Gly Leu Tyr Glu Glu
65 70 75 80

Gly Ile Ser Ile Leu Glu Ser Ser Ser Ala Phe Pro Asp Asn Ala Ala
85 90 95

Arg Arg Glu Val Glu Ser Leu Pro Ala Val Cys Pro Asn Asp Gly Cys
100 105 110

Thr Trp Lys Gly Thr Leu Lys Glu Tyr Glu Ser Cys His Glu Gly Leu
115 120 125

Cys Pro Phe Leu Leu Thr Glu Cys Pro Ala Cys Lys Gly Leu Val Arg
130 135 140

Leu Ser Glu Lys Glu His His Thr Glu Gln Glu Cys Pro Lys Arg Ser
145 150 155 160

Leu Ser Cys Gln His Cys Arg Ala Pro Cys Ser His Val Asp Leu Glu
165 170 175

Val His Tyr Glu Val Cys Pro Lys Phe Pro Leu Thr Cys Asp Gly Cys
 180 185 190

Gly Lys Lys Lys Ile Pro Arg Glu Thr Phe Gln Asp His Val Arg Ala
 195 200 205

Cys Ser Lys Cys Arg Val Leu Cys Arg Phe His Thr Val Gly Cys Ser
 210 215 220

Glu Met Val Glu Thr Glu Asn Leu Gln Asp His Glu Leu Gln Arg Leu
 225 230 235 240

Arg Glu His Leu Ala Leu Leu Leu Ser Ser Phe Leu Glu Ala Gln Ala
 245 250 255

Ser Pro Gly Thr Leu Asn Gln Val Gly Pro Glu Leu Leu Gln Arg Cys
 260 265 270

Gln Ile Leu Glu Gln Lys Ile Ala Thr Phe Glu Asn Ile Val Cys Val
 275 280 285

Leu Asn Arg Glu Val Glu Arg Val Ala Val Thr Ala Glu Ala Cys Ser
 290 295 300

Arg Gln His Arg Leu Asp Gln Asp Lys Ile Glu Ala Leu Ser Asn Lys
 305 310 315 320

Val Gln Gln Leu Glu Arg Ser Ile Gly Leu Lys Asp Leu Ala Met Ala
 325 330 335

Asp Leu Glu Gln Lys Val Ser Glu Leu Glu Val Ser Thr Tyr Asp Gly
 340 345 350

Val Phe Ile Trp Lys Ile Ser Asp Phe Thr Arg Lys Arg Gln Glu Ala
 355 360 365

Val Ala Gly Arg Thr Pro Ala Ile Phe Ser Pro Ala Phe Tyr Thr Ser
 370 375 380

Arg Tyr Gly Tyr Lys Met Cys Leu Arg Val Tyr Leu Asn Gly Asp Gly
 385 390 395 400

Thr Gly Arg Gly Thr His Leu Ser Leu Phe Phe Val Val Met Lys Gly
 405 410 415

Pro Asn Asp Ala Leu Leu Gln Trp Pro Phe Asn Gln Lys Val Thr Leu
 420 425 430

Met Leu Leu Asp His Asn Asn Arg Glu His Val Ile Asp Ala Phe Arg
 435 440 445

Pro Asp Val Thr Ser Ser Ser Phe Gln Arg Pro Val Ser Asp Met Asn
 450 455 460

Ile Ala Ser Gly Cys Pro Leu Phe Cys Pro Val Ser Lys Met Glu Ala
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Lys Asn Ser Tyr Val Arg Asp Asp Ala Ile Phe Ile Lys Ala Ile Val
 485 490 495

Asp Leu Thr Gly Leu
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<210> 10
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 <212> DNA
 <213> Homo sapiens

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<210> 11
 <211> 908
 <212> PRT
 <213> Homo sapiens

<400> 11

Met Glu Glu Gly Gly Arg Asp Lys Ala Pro Val Gln Pro Gln Gln Ser
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Pro Ala Ala Ala Pro Gly Gly Thr Asp Glu Lys Pro Ser Gly Lys Glu
20 25 30

Arg Arg Asp Ala Gly Asp Lys Asp Lys Glu Gln Glu Leu Ser Glu Glu
35 40 45

Asp Lys Gln Leu Gln Asp Glu Leu Glu Met Leu Val Glu Arg Leu Gly
50 55 60

Glu Lys Asp Thr Ser Leu Tyr Arg Pro Ala Leu Glu Glu Leu Arg Arg
65 70 75 80

Gln Ile Arg Ser Ser Thr Thr Ser Met Thr Ser Val Pro Lys Pro Leu
85 90 95

Lys Phe Leu Arg Pro His Tyr Gly Lys Leu Lys Glu Ile Tyr Glu Asn
100 105 110

Met Ala Pro Gly Glu Asn Lys Arg Phe Ala Ala Asp Ile Ile Ser Val
 115 120 125

Leu Ala Met Thr Met Ser Gly Glu Arg Glu Cys Leu Lys Tyr Arg Leu
 130 135 140

Val Gly Ser Gln Glu Glu Leu Ala Ser Trp Gly His Glu Tyr Val Arg
 145 150 155 160

His Leu Ala Gly Glu Val Ala Lys Glu Trp Gln Glu Leu Asp Asp Ala
 165 170 175

Glu Lys Val Gln Arg Glu Pro Leu Leu Thr Leu Val Lys Glu Ile Val
 180 185 190

Pro Tyr Asn Met Ala His Asn Ala Glu His Glu Ala Cys Asp Leu Leu
 195 200 205

Met Glu Ile Glu Gln Val Asp Met Leu Glu Lys Asp Ile Asp Glu Asn
 210 215 220

Ala Tyr Ala Lys Val Cys Leu Tyr Leu Thr Ser Cys Val Asn Tyr Val
 225 230 235 240

Pro Glu Pro Glu Asn Ser Ala Leu Leu Arg Cys Ala Leu Gly Val Phe
 245 250 255

Arg Lys Phe Ser Arg Phe Pro Glu Ala Leu Arg Leu Ala Leu Met Leu
 260 265 270

Asn Asp Met Glu Leu Val Glu Asp Ile Phe Thr Ser Cys Lys Asp Val
 275 280 285

Val Val Gln Lys Gln Met Ala Phe Met Leu Gly Arg His Gly Val Phe
 290 295 300

Leu Glu Leu Ser Glu Asp Val Glu Glu Tyr Glu Asp Leu Thr Glu Ile
 305 310 315 320

Met Ser Asn Val Gln Leu Asn Ser Asn Phe Leu Ala Leu Ala Arg Glu
 325 330 335

Leu Asp Ile Met Glu Pro Lys Val Pro Asp Asp Ile Tyr Lys Thr His
 340 345 350

Leu Glu Asn Asn Arg Phe Gly Gly Ser Gly Ser Gln Val Asp Ser Ala
 355 360 365

Arg Met Asn Leu Ala Ser Ser Phe Val Asn Gly Phe Val Asn Ala Ala
 370 375 380

Phe Gly Gln Asp Lys Leu Leu Thr Asp Asp Gly Asn Lys Trp Leu Tyr
 385 390 395 400

Lys Asn Lys Asp His Gly Met Leu Ser Ala Ala Ala Ser Leu Gly Met
 405 410 415

Ile Leu Leu Trp Asp Val Asp Gly Gly Leu Thr Gln Ile Asp Lys Tyr
 420 425 430

Leu Tyr Ser Ser Glu Asp Tyr Ile Lys Ser Gly Ala Leu Leu Ala Cys
 435 440 445

Gly Ile Val Asn Ser Gly Val Arg Asn Glu Cys Asp Pro Ala Leu Ala
 450 455 460

Leu Leu Ser Asp Tyr Val Leu His Asn Ser Asn Thr Met Arg Leu Gly
 465 470 475 480

Ser Ile Phe Gly Leu Gly Leu Ala Tyr Ala Gly Ser Asn Arg Glu Asp
 485 490 495

Val Leu Thr Leu Leu Leu Pro Val Met Gly Asp Ser Lys Ser Ser Met
 500 505 510

Glu Val Ala Gly Val Thr Ala Leu Ala Cys Gly Met Ile Ala Val Gly
 515 520 525

Ser Cys Asn Gly Asp Val Thr Ser Thr Ile Leu Gln Thr Ile Met Glu
 530 535 540

Lys Ser Glu Thr Glu Leu Lys Asp Thr Tyr Ala Arg Trp Leu Pro Leu
 545 550 555 560

Gly Leu Gly Leu Asn His Leu Gly Lys Gly Glu Ala Ile Glu Ala Ile
 565 570 575

Leu Ala Ala Leu Glu Val Val Ser Glu Pro Phe Arg Ser Phe Ala Asn
 580 585 590

Thr Leu Val Asp Val Cys Ala Tyr Ala Gly Ser Gly Asn Val Leu Lys
595 600 605

Val Gln Gln Leu Leu His Ile Cys Ser Glu His Phe Asp Ser Lys Glu
610 615 620

Lys Glu Glu Asp Lys Asp Lys Lys Glu Lys Lys Asp Lys Asp Lys Lys
625 630 635 640

Glu Ala Pro Ala Asp Met Gly Ala His Gln Gly Val Ala Val Leu Gly
645 650 655

Ile Ala Leu Ile Ala Met Gly Glu Glu Ile Gly Ala Glu Met Ala Leu
660 665 670

Arg Thr Phe Gly His Leu Leu Arg Tyr Gly Glu Pro Thr Leu Arg Arg
675 680 685

Ala Val Pro Leu Ala Leu Ala Leu Ile Ser Val Ser Asn Pro Arg Leu
690 695 700

Asn Ile Leu Asp Thr Leu Ser Lys Phe Ser His Asp Ala Asp Pro Glu
705 710 715 720

Val Ser Tyr Asn Ser Ile Phe Ala Met Gly Met Val Gly Ser Gly Thr
725 730 735

Asn Asn Ala Arg Leu Ala Ala Met Leu Arg Gln Leu Ala Gln Tyr His
740 745 750

Ala Lys Asp Pro Asn Asn Leu Phe Met Val Arg Leu Ala Gln Gly Leu
755 760 765

Thr His Leu Gly Lys Gly Thr Leu Thr Leu Cys Pro Tyr His Ser Asp
770 775 780

Arg Gln Leu Met Ser Gln Val Ala Val Ala Gly Leu Leu Thr Val Leu
785 790 795 800

Val Ser Phe Leu Asp Val Arg Asn Ile Ile Leu Gly Lys Ser His Tyr
805 810 815

Val Leu Tyr Gly Leu Val Ala Ala Met Gln Pro Arg Met Leu Val Thr
820 825 830

Phe Asp Glu Glu Leu Arg Pro Leu Pro Val Ser Val Arg Val Gly Gln
 835 840 845

Ala Val Asp Val Val Gly Gln Ala Gly Lys Pro Lys Thr Ile Thr Gly
 850 855 860

Phe Gln Thr His Thr Thr Pro Val Leu Leu Ala His Gly Glu Arg Ala
 865 870 875 880

Glu Leu Ala Thr Glu Glu Phe Leu Pro Val Thr Pro Ile Leu Glu Gly
 885 890 895

Phe Val Ile Leu Arg Lys Asn Pro Asn Tyr Asp Leu
 900 905

<210> 12

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 12

atggaggagg gaggccggga caaggcgccg gtgcagcccc agcagtctcc agcggcgggc	60
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aaagaacagg agctgtctga agaggataaa cagcttcaag atgaactgga gatgctcgtg	180
gaacgactag gggagaagga tacatccctg tatcgaccag cgctggagga attgcaagg	240
cagattcggt cttctacaac ttccatgact tcagtgccca agcctctcaa atttctgcgt	300
ccacactatg gcaaactgaa ggaaatctat gagaacatgg cccctgggga gaataagcgt	360
tttgctgctg acatcatctc cgttttggcc atgaccatga gtggggagcg tgagtgcctc	420
aagtatcggc tagtgggctc ccaggaggaa ttggcatcat ggggtcatga gtatgtcagg	480
catctggcag gagaagtggc taaggagtgg caggagctgg atgacgcaga gaaggtccag	540
cgggagcctc tgctcactct ggtgaaggaa atcgtccctt ataacatggc ccacaatgca	600
gagcatgagg cttgcgacct gcttatggaa attgagcagg tggacatgct ggagaaggac	660
attgatgaaa atgcatatgc aaaggctctgc ctttatctca ccagttgtgt gaattacgtg	720
cctgagcctg agaactcagc cctactgcgt tgtgccctgg gtgtgttccg aaagtttagc	780
cgcttccttg aagctctgag attggcattg atgctcaatg acatggagtt ggtagaagac	840
atcttcacct cctgcaagga tgtggtagta cagaaacaga tggcattcat gctaggccgg	900
catgggggtg tcctggagct gagtgaagat gtcgaggagt atgaggacct gacagagatc	960
atgtccaatg tacagctcaa cagcaacttc ttggccttag ctcgggagct ggacatcatg	1020

gagcccaagg	tgctgatga	catctacaaa	accacctag	agaacaacag	gtttgggggc	1080
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gactccaaag	agaaggagga	agacaaagac	aagaaggaaa	agaaagacaa	ggacaagaag	1920
gaagccctg	ctgacatggg	agcacatcag	ggagtggctg	ttctggggat	tgcccttatt	1980
gctatggggg	aggagattgg	tgagagatg	gcattacgaa	cctttggcca	cttgcctgaga	2040
tatggggagc	ctacactccg	gagggctgta	cctttagcac	tggccctcat	ctctgtttca	2100
aatccacgac	tcaacatcct	ggatacccta	agcaaattct	ctcatgatgc	tgatccagaa	2160
gtttcctata	actccatttt	tgccatgggc	atggtgggca	gtggtaccaa	taatgcccg	2220
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atggtgcgct	tggcacaggg	cctgacacat	ttaggggaagg	gcacccttac	cctctgcccc	2340
taccacagcg	accggcagct	tatgagccag	gtggccgtgg	ctggactgct	cactgtgctt	2400
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ctggtggctg	ccatgcagcc	ccgaatgctg	gttacgtttg	atgaggagct	gcggccattg	2520
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actatcacag	ggttccagac	gcatacaacc	ccagtgttgt	tggcccacgg	ggaacgggca	2640
gaattggcca	ctgaggagtt	tcttcctgtt	acccccattc	tgggaaggtt	tgttatcctt	2700
cggaagaacc	ccaattatga	tctctaa				2727

<210> 13
 <211> 729
 <212> PRT
 <213> Homo sapiens

<400> 13

Met Gln Ser Thr Ser Asn His Leu Trp Leu Leu Ser Asp Ile Leu Gly
 1 5 10 15

Gln Gly Ala Thr Ala Asn Val Phe Arg Gly Arg His Lys Lys Thr Gly
 20 25 30

Asp Leu Phe Ala Ile Lys Val Phe Asn Asn Ile Ser Phe Leu Arg Pro
 35 40 45

Val Asp Val Gln Met Arg Glu Phe Glu Val Leu Lys Lys Leu Asn His
 50 55 60

Lys Asn Ile Val Lys Leu Phe Ala Ile Glu Glu Glu Thr Thr Thr Arg
 65 70 75 80

His Lys Val Leu Ile Met Glu Phe Cys Pro Cys Gly Ser Leu Tyr Thr
 85 90 95

Val Leu Glu Glu Pro Ser Asn Ala Tyr Gly Leu Pro Glu Ser Glu Phe
 100 105 110

Leu Ile Val Leu Arg Asp Val Val Gly Gly Met Asn His Leu Arg Glu
 115 120 125

Asn Gly Ile Val His Arg Asp Ile Lys Pro Gly Asn Ile Met Arg Val
 130 135 140

Ile Gly Glu Asp Gly Gln Ser Val Tyr Lys Leu Thr Asp Phe Gly Ala
 145 150 155 160

Ala Arg Glu Leu Glu Asp Asp Glu Gln Phe Val Ser Leu Tyr Gly Thr
 165 170 175

Glu Glu Tyr Leu His Pro Asp Met Tyr Glu Arg Ala Val Leu Arg Lys
 180 185 190

Asp His Gln Lys Lys Tyr Gly Ala Thr Val Asp Leu Trp Ser Ile Gly
 195 200 205

Val Thr Phe Tyr His Ala Ala Thr Gly Ser Leu Pro Phe Arg Pro Phe
 210 215 220

Glu Gly Pro Arg Arg Asn Lys Glu Val Met Tyr Lys Ile Ile Thr Gly
 225 230 235 240

Lys Pro Ser Gly Ala Ile Ser Gly Val Gln Lys Ala Glu Asn Gly Pro
 245 250 255

Ile Asp Trp Ser Gly Asp Met Pro Val Ser Cys Ser Leu Ser Arg Gly
 260 265 270

Leu Gln Val Leu Leu Thr Pro Val Leu Ala Asn Ile Leu Glu Ala Asp
 275 280 285

Gln Glu Lys Cys Trp Gly Phe Asp Gln Phe Phe Ala Glu Thr Ser Asp
 290 295 300

Ile Leu His Arg Met Val Ile His Val Phe Ser Leu Gln Gln Met Thr
 305 310 315 320

Ala His Lys Ile Tyr Ile His Ser Tyr Asn Thr Ala Thr Ile Phe His
 325 330 335

Glu Leu Val Tyr Lys Gln Thr Lys Ile Ile Ser Ser Asn Gln Glu Leu
 340 345 350

Ile Tyr Glu Gly Arg Arg Leu Val Leu Glu Pro Gly Arg Leu Ala Gln
 355 360 365

His Phe Pro Lys Thr Thr Glu Glu Asn Pro Ile Phe Val Val Ser Arg
 370 375 380

Glu Pro Leu Asp Thr Ile Gly Leu Ile Tyr Glu Lys Ile Ser Leu Pro
 385 390 395 400

Lys Val His Pro Arg Tyr Asp Leu Asp Gly Asp Ala Ser Met Ala Lys
 405 410 415

Ala Ile Thr Gly Val Val Cys Tyr Ala Cys Arg Ile Ala Ser Thr Leu
 420 425 430

Leu Leu Tyr Gln Glu Leu Met Arg Lys Gly Ile Arg Trp Leu Ile Glu
 435 440 445

Leu Ile Lys Asp Asp Tyr Asn Glu Thr Val His Lys Lys Thr Glu Val
 450 455 460

Val Ile Thr Leu Asp Phe Cys Ile Arg Asn Ile Glu Lys Thr Val Lys
 465 470 475 480

Val Tyr Glu Lys Leu Met Lys Ile Asn Leu Glu Ala Ala Glu Leu Gly
 485 490 495

Glu Ile Ser Asp Ile His Thr Lys Leu Leu Arg Leu Ser Ser Ser Gln
 500 505 510

Gly Thr Ile Glu Thr Ser Leu Gln Asp Ile Asp Ser Arg Leu Ser Pro
 515 520 525

Gly Gly Ser Leu Ala Asp Ala Trp Ala His Gln Glu Gly Thr His Pro
 530 535 540

Lys Asp Arg Asn Val Glu Lys Leu Gln Val Leu Leu Asn Cys Met Thr
 545 550 555 560

Glu Ile Tyr Tyr Gln Phe Lys Lys Asp Gln Ala Glu Arg Arg Leu Ala
 565 570 575

Tyr Asn Glu Glu Gln Ile His Lys Phe Asp Lys Gln Lys Leu Tyr Tyr
 580 585 590

His Ala Thr Lys Ala Met Thr His Phe Thr Asp Glu Cys Val Lys Lys
 595 600 605

Tyr Glu Ala Phe Leu Asn Lys Ser Glu Glu Trp Ile Arg Lys Met Leu
 610 615 620

His Leu Arg Lys Gln Leu Leu Ser Leu Thr Asn Gln Cys Phe Asp Ile
 625 630 635 640

Glu Glu Glu Val Ser Lys Tyr Gln Glu Tyr Thr Asn Glu Leu Gln Glu
 645 650 655

Thr Leu Pro Gln Lys Met Phe Thr Ala Ser Ser Gly Ile Lys His Thr
 660 665 670

Met Thr Pro Ile Tyr Pro Ser Ser Asn Thr Leu Val Glu Met Thr Leu
 675 680 685

Gly Met Lys Lys Leu Lys Glu Glu Met Glu Gly Val Val Lys Glu Leu
 690 695 700

Ala Glu Asn Asn His Ile Leu Glu Arg Phe Gly Ser Leu Thr Met Asp
 705 710 715 720

Gly Gly Leu Arg Asn Val Asp Cys Leu
 725

<210> 14
 <211> 2190
 <212> DNA
 <213> Homo sapiens

<400> 14
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 gcaaattgtct ttcgtggaag acataagaaa actggtgatt tatttgctat caaagtattt 120
 aataacataa gcttccttcg tccagtggat gttcaaataa gagaatttga agtggtgaaa 180
 aaactcaatc acaaaaatat tgtcaaatta tttgctattg aagaggagac aacaacaaga 240
 cataaagtac ttattatgga attttgtcca tgtgggagtt tatacactgt tttagaagaa 300
 ccttctaatag cctatggact accagaatct gaattcttaa ttgttttgcg agatgtggtg 360
 ggtggaatga atcatctacg agagaatggt atagtgcacc gtgatatacaa gccaggaaat 420
 atcatgcgtg ttatagggga agatggacag tctgtgtaca aactcacaga ttttggtgca 480
 gctagagaat tagaagatga tgagcagttt gtttctctgt atggcacaga agaataattt 540
 caccctgata tgtatgagag agcagtgtca agaaaagatc atcagaagaa atatggagca 600
 acagttgatc tttggagcat tggggtaaca ttttaccatg cagctactgg atcactgcc 660
 ttttagaccct ttgaagggcc tcgtaggaat aaagaagtga tgtataaaat aattacagga 720
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 cttgcaaaca tccttgaagc agatcaggaa aagtgttggg gttttgacca gttttttgca 900
 gaaactagtg atataacttca ccgaatggta attcatgttt tttcgctaca acaaatgaca 960
 gctcataaga tttatataca tagctataat actgctacta tttttcatga actggtatat 1020
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 ttagaacctg gaaggctggc acaacatttc cctaaaacta ctgaggaaaa ccctatat 1140
 gtagtaagcc gggaacctct ggataccata ggattaatat atgaaaaaat ttccctccct 1200
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gttgtgtgtt atgcctgcag aattgccagt accttactgc tttatcagga attaatgcga 1320
 aaggggatac gatggctgat tgaattaatt aaagatgatt acaatgaaac tggtcacaaa 1380
 aagacagaag ttgtgatcac attggatttc tgtatcagaa acattgaaaa aactgtgaaa 1440
 gtatatgaaa agttgatgaa gatcaacctg gaagcggcag agttaggtga aatttcagac 1500
 atacacacca aattgttgag actttccagt tctcaggga caatagaaac cagtcttcag 1560
 gatatcgaca gcagattatc tccaggtgga tctactggcag acgcatgggc acatcaagaa 1620
 ggcactcatc cgaaagacag aaatgtagaa aaactacaag tcctgttaaa ttgcatgaca 1680
 gagatttact atcagttcaa aaaagaccaa gcagaacgta gattagctta taatgaagaa 1740
 caaatccaca aatttgataa gcaaaaactg tattaccatg ccacaaaagc tatgacgcac 1800
 tttacagatg aatgtgttaa aaagtatgag gcatttttga ataagtcaga agaatggata 1860
 agaaagatgc ttcactcttag gaaacagtta ttatcgctga ctaatcagtg ttttgatatt 1920
 gaagaagaag tatcaaaata tcaagaatat actaatgagt tacaagaaac tctgcctcag 1980
 aaaatgttta cagcttccag tggaatcaaa cataccatga cccaattta tccaagttct 2040
 aacacattag tagaaatgac tcttggtatg aagaaattaa aggaagagat ggaaggggtg 2100
 gttaaagaac ttgctgaaaa taaccacatt ttagaaaggt ttggctcttt aaccatggat 2160
 ggtggccttc gcaacgttga ctgtctttag 2190

<210> 15
 <211> 834
 <212> PRT
 <213> Homo sapiens

<400> 15

Met Ala Val Glu Asp Glu Gly Leu Arg Val Phe Gln Ser Val Lys Ile
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Lys Ile Gly Glu Ala Lys Asn Leu Pro Ser Tyr Pro Gly Pro Ser Lys
 20 25 30

Met Arg Asp Cys Tyr Cys Thr Val Asn Leu Asp Gln Glu Glu Val Phe
 35 40 45

Arg Thr Lys Ile Val Glu Lys Ser Leu Cys Pro Phe Tyr Gly Glu Asp
 50 55 60

Phe Tyr Cys Glu Ile Pro Arg Ser Phe Arg His Leu Ser Phe Tyr Ile
 65 70 75 80

Phe Asp Arg Asp Val Phe Arg Arg Asp Ser Ile Ile Gly Lys Val Ala
85 90 95

Ile Gln Lys Glu Asp Leu Gln Lys Tyr His Asn Arg Asp Thr Trp Phe
100 105 110

Gln Leu Gln His Val Asp Ala Asp Ser Glu Val Gln Gly Lys Val His
115 120 125

Leu Glu Leu Arg Leu Ser Glu Val Ile Thr Asp Thr Gly Val Val Cys
130 135 140

His Lys Leu Ala Thr Arg Ile Val Glu Cys Gln Gly Leu Pro Ile Val
145 150 155 160

Asn Gly Gln Cys Asp Pro Tyr Ala Thr Val Thr Leu Ala Gly Pro Phe
165 170 175

Arg Ser Glu Ala Lys Lys Thr Lys Val Lys Arg Lys Thr Asn Asn Pro
180 185 190

Gln Phe Asp Glu Val Phe Tyr Phe Glu Val Thr Arg Pro Cys Ser Tyr
195 200 205

Ser Lys Lys Ser His Phe Asp Phe Glu Glu Glu Asp Val Asp Lys Leu
210 215 220

Glu Ile Arg Val Asp Leu Trp Asn Ala Ser Asn Leu Lys Phe Gly Asp
225 230 235 240

Glu Phe Leu Gly Glu Leu Arg Ile Pro Leu Lys Val Leu Arg Gln Ser
245 250 255

Ser Ser Tyr Glu Ala Trp Tyr Phe Leu Gln Pro Arg Asp Asn Gly Ser
260 265 270

Lys Ser Leu Lys Pro Asp Asp Leu Gly Ser Leu Arg Leu Asn Val Val
275 280 285

Tyr Thr Glu Asp His Val Phe Ser Ser Asp Tyr Tyr Ser Pro Leu Arg
290 295 300

Asp Leu Leu Leu Lys Ser Ala Asp Val Glu Pro Val Ser Ala Ser Ala
305 310 315 320

Ala His Ile Leu Gly Glu Val Cys Arg Glu Lys Gln Glu Ala Ala Val
 325 330 335

Pro Leu Val Arg Leu Phe Leu His Tyr Gly Arg Val Val Pro Phe Ile
 340 345 350

Ser Ala Ile Ala Ser Ala Glu Val Lys Arg Thr Gln Asp Pro Asn Thr
 355 360 365

Ile Phe Arg Gly Asn Ser Leu Ala Ser Lys Cys Ile Asp Glu Thr Met
 370 375 380

Lys Leu Ala Gly Met His Tyr Leu His Val Thr Leu Lys Pro Ala Ile
 385 390 395 400

Glu Glu Ile Cys Gln Ser His Lys Pro Cys Glu Ile Asp Pro Val Lys
 405 410 415

Leu Lys Asp Gly Glu Asn Leu Glu Asn Asn Met Glu Asn Leu Arg Gln
 420 425 430

Tyr Val Asp Arg Val Phe His Ala Ile Thr Glu Ser Gly Val Ser Cys
 435 440 445

Pro Thr Val Met Cys Asp Ile Phe Phe Ser Leu Arg Glu Ala Ala Ala
 450 455 460

Lys Arg Phe Gln Asp Asp Pro Asp Val Arg Tyr Thr Ala Val Ser Ser
 465 470 475 480

Phe Ile Phe Leu Arg Phe Phe Ala Pro Ala Ile Leu Ser Pro Asn Leu
 485 490 495

Phe Gln Leu Thr Pro His His Thr Asp Pro Gln Thr Ser Arg Thr Leu
 500 505 510

Thr Leu Ile Ser Lys Thr Val Gln Thr Leu Gly Ser Leu Ser Lys Ser
 515 520 525

Lys Ser Ala Ser Phe Lys Glu Ser Tyr Met Ala Thr Phe Tyr Glu Phe
 530 535 540

Phe Asn Glu Gln Lys Tyr Ala Asp Ala Val Lys Asn Phe Leu Asp Leu
 545 550 555 560

Ile Ser Ser Ser Gly Arg Arg Asp Pro Lys Ser Val Glu Gln Pro Ile
565 570 575

Val Leu Lys Glu Gly Phe Met Ile Lys Arg Ala Gln Gly Arg Lys Arg
580 585 590

Phe Gly Met Lys Asn Phe Lys Lys Arg Trp Phe Arg Leu Thr Asn His
595 600 605

Glu Phe Thr Tyr His Lys Ser Lys Gly Asp Gln Pro Leu Tyr Ser Ile
610 615 620

Pro Ile Glu Asn Ile Leu Ala Val Glu Lys Leu Glu Glu Glu Ser Phe
625 630 635 640

Lys Met Lys Asn Met Phe Gln Val Ile Gln Pro Glu Arg Ala Leu Tyr
645 650 655

Ile Gln Ala Asn Asn Cys Val Glu Ala Lys Asp Trp Ile Asp Ile Leu
660 665 670

Thr Lys Val Ser Gln Cys Asn Gln Lys Arg Leu Thr Val Tyr His Pro
675 680 685

Ser Ala Tyr Leu Ser Gly His Trp Leu Cys Cys Arg Ala Pro Ser Asp
690 695 700

Ser Ala Pro Gly Cys Ser Pro Cys Thr Gly Gly Leu Pro Ala Asn Ile
705 710 715 720

Gln Leu Asp Ile Asp Gly Asp Arg Glu Thr Glu Arg Ile Tyr Ser Leu
725 730 735

Phe Asn Leu Tyr Met Ser Lys Leu Glu Lys Met Gln Glu Ala Cys Gly
740 745 750

Ser Lys Ser Val Tyr Asp Gly Pro Glu Gln Glu Glu Tyr Ser Thr Phe
755 760 765

Val Ile Asp Asp Pro Gln Glu Thr Tyr Lys Thr Leu Lys Gln Val Ile
770 775 780

Ala Gly Val Gly Ala Leu Glu Gln Glu His Ala Gln Tyr Lys Arg Asp
785 790 795 800

Lys Phe Lys Lys Thr Lys Tyr Gly Ser Gln Glu His Pro Ile Gly Asp
 805 810 815

Lys Ser Phe Gln Asn Tyr Ile Arg Gln Gln Ser Glu Thr Ser Thr His
 820 825 830

Ser Ile

<210> 16
 <211> 2505
 <212> PRT
 <213> Homo sapiens

<400> 16

Ala Thr Gly Gly Cys Gly Gly Thr Gly Gly Ala Gly Gly Ala Cys Gly
 1 5 10 15

Ala Gly Gly Gly Gly Cys Thr Cys Cys Gly Gly Gly Thr Cys Thr Thr
 20 25 30

Cys Cys Ala Gly Ala Gly Cys Gly Thr Gly Ala Ala Gly Ala Thr Cys
 35 40 45

Ala Ala Gly Ala Thr Cys Gly Gly Thr Gly Ala Ala Gly Cys Cys Ala
 50 55 60

Ala Ala Ala Ala Cys Cys Thr Thr Cys Cys Cys Thr Cys Thr Thr Ala
 65 70 75 80

Cys Cys Cys Gly Gly Gly Gly Cys Cys Gly Ala Gly Cys Ala Ala Gly
 85 90 95

Ala Thr Gly Ala Gly Gly Gly Ala Thr Thr Gly Cys Thr Ala Cys Thr
 100 105 110

Gly Cys Ala Cys Gly Gly Thr Gly Ala Ala Cys Cys Thr Gly Gly Ala
 115 120 125

Cys Cys Ala Gly Gly Ala Gly Gly Ala Gly Gly Thr Thr Thr Thr Cys
 130 135 140

Ala Gly Gly Ala Cys Cys Ala Ala Ala Ala Thr Thr Gly Thr Gly Gly
 145 150 155 160

Ala Ala Ala Ala Gly Thr Cys Ala Cys Thr Cys Thr Gly Cys Cys Cys
 165 170 175

Gly Thr Thr Thr Thr Ala Cys Gly Gly Ala Gly Ala Ala Gly Ala Cys
 180 185 190

Thr Thr Thr Thr Ala Cys Thr Gly Thr Gly Ala Ala Ala Thr Thr Cys
 195 200 205

Cys Thr Cys Gly Gly Ala Gly Cys Thr Thr Thr Cys Gly Thr Cys Ala
 210 215 220

Cys Cys Thr Gly Thr Cys Cys Thr Thr Cys Thr Ala Cys Ala Thr Thr
 225 230 235 240

Thr Thr Cys Gly Ala Thr Ala Gly Ala Gly Ala Cys Gly Thr Thr Thr
 245 250 255

Thr Cys Cys Gly Gly Ala Gly Gly Gly Ala Thr Thr Cys Cys Ala Thr
 260 265 270

Cys Ala Thr Ala Gly Gly Gly Ala Ala Gly Gly Thr Gly Gly Cys Cys
 275 280 285

Ala Thr Cys Cys Ala Gly Ala Ala Gly Gly Ala Gly Gly Ala Cys Thr
 290 295 300

Thr Gly Cys Ala Gly Ala Ala Gly Thr Ala Cys Cys Ala Cys Ala Ala
 305 310 315 320

Cys Ala Gly Gly Gly Ala Cys Ala Cys Cys Thr Gly Gly Thr Thr Cys
 325 330 335

Cys Ala Gly Cys Thr Gly Cys Ala Gly Cys Ala Cys Gly Thr Gly Gly
 340 345 350

Ala Cys Gly Cys Thr Gly Ala Cys Thr Cys Gly Gly Ala Ala Gly Thr
 355 360 365

Gly Cys Ala Gly Gly Gly Cys Ala Ala Ala Gly Thr Gly Cys Ala Cys
 370 375 380

Cys Thr Gly Gly Ala Gly Cys Thr Gly Cys Gly Gly Cys Thr Gly Ala
 385 390 395 400

Gly Cys Gly Ala Gly Gly Thr Cys Ala Thr Cys Ala Cys Ala Gly Ala
 405 410 415

Cys Ala Cys Thr Gly Gly Gly Gly Thr Cys Gly Thr Cys Thr Gly Cys
 420 425 430

Cys Ala Cys Ala Ala Gly Cys Thr Cys Gly Cys Cys Ala Cys Ala Cys
 435 440 445

Gly Cys Ala Thr Cys Gly Thr Cys Gly Ala Gly Thr Gly Cys Cys Ala
 450 455 460

Gly Gly Gly Cys Cys Thr Cys Cys Cys Cys Ala Thr Cys Gly Thr Gly
 465 470 475 480

Ala Ala Thr Gly Gly Gly Cys Ala Ala Thr Gly Thr Gly Ala Cys Cys
 485 490 495

Cys Cys Thr Ala Cys Gly Cys Cys Ala Cys Cys Gly Thr Gly Ala Cys
 500 505 510

Gly Cys Thr Gly Gly Cys Ala Gly Gly Ala Cys Cys Cys Thr Thr Cys
 515 520 525

Ala Gly Ala Thr Cys Ala Gly Ala Ala Gly Cys Ala Ala Ala Gly Ala
 530 535 540

Ala Gly Ala Cys Gly Ala Ala Ala Gly Thr Gly Ala Ala Gly Ala Gly
 545 550 555 560

Gly Ala Ala Gly Ala Cys Cys Ala Ala Cys Ala Ala Thr Cys Cys Cys
 565 570 575

Cys Ala Gly Thr Thr Cys Gly Ala Thr Gly Ala Ala Gly Thr Gly Thr
 580 585 590

Thr Thr Thr Ala Thr Thr Thr Thr Gly Ala Gly Gly Thr Gly Ala Cys
 595 600 605

Cys Cys Gly Gly Cys Cys Cys Thr Gly Thr Ala Gly Cys Thr Ala Cys
 610 615 620

Ala Gly Cys Ala Ala Gly Ala Ala Gly Thr Cys Cys Cys Ala Cys Thr
 625 630 635 640

Thr Thr Gly Ala Cys Thr Thr Thr Gly Ala Gly Gly Ala Gly Gly Ala
645 650 655

Ala Gly Ala Cys Gly Thr Gly Gly Ala Cys Ala Ala Gly Cys Thr Cys
660 665 670

Gly Ala Ala Ala Thr Cys Ala Gly Ala Gly Thr Thr Gly Ala Cys Cys
675 680 685

Thr Cys Thr Gly Gly Ala Ala Thr Gly Cys Cys Ala Gly Thr Ala Ala
690 695 700

Cys Cys Thr Gly Ala Ala Gly Thr Thr Thr Gly Gly Ala Gly Ala Thr
705 710 715 720

Gly Ala Ala Thr Thr Cys Cys Thr Gly Gly Gly Ala Gly Ala Ala Cys
725 730 735

Thr Ala Ala Gly Gly Ala Thr Cys Cys Cys Gly Thr Thr Gly Ala Ala
740 745 750

Ala Gly Thr Cys Cys Thr Gly Cys Gly Gly Cys Ala Gly Thr Cys Cys
755 760 765

Ala Gly Cys Thr Cys Cys Thr Ala Cys Gly Ala Gly Gly Cys Gly Thr
770 775 780

Gly Gly Thr Ala Cys Thr Thr Cys Cys Thr Cys Cys Ala Gly Cys Cys
785 790 795 800

Cys Cys Gly Gly Gly Ala Cys Ala Ala Thr Gly Gly Thr Ala Gly Cys
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Ala Ala Gly Ala Gly Cys Cys Thr Ala Ala Ala Gly Cys Cys Ala Gly
820 825 830

Ala Cys Gly Ala Cys Cys Thr Gly Gly Gly Cys Thr Cys Cys Cys Thr
835 840 845

Gly Cys Gly Gly Cys Thr Gly Ala Ala Cys Gly Thr Gly Gly Thr Ala
850 855 860

Thr Ala Cys Ala Cys Gly Gly Ala Ala Gly Ala Cys Cys Ala Cys Gly
865 870 875 880

Thr Gly Thr Thr Thr Thr Cys Thr Thr Cys Thr Gly Ala Cys Thr Ala
885 890 895

Thr Thr Ala Cys Ala Gly Cys Cys Cys Thr Cys Thr Gly Cys Gly Gly
900 905 910

Gly Ala Cys Cys Thr Gly Cys Thr Gly Thr Thr Gly Ala Ala Gly Thr
915 920 925

Cys Thr Gly Cys Gly Gly Ala Thr Gly Thr Gly Gly Ala Gly Cys Cys
930 935 940

Cys Gly Thr Gly Thr Cys Ala Gly Cys Gly Thr Cys Thr Gly Cys Gly
945 950 955 960

Gly Cys Cys Cys Ala Cys Ala Thr Cys Cys Thr Gly Gly Gly Cys Gly
965 970 975

Ala Gly Gly Thr Thr Thr Gly Cys Cys Gly Gly Gly Ala Gly Ala Ala
980 985 990

Gly Cys Ala Gly Gly Ala Gly Gly Cys Gly Gly Cys Cys Gly Thr Cys
995 1000 1005

Cys Cys Gly Cys Thr Gly Gly Thr Gly Cys Gly Gly Cys Thr Cys
1010 1015 1020

Thr Thr Cys Cys Thr Ala Cys Ala Cys Thr Ala Thr Gly Gly Cys
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1115 1120 1125

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1130 1135 1140

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1145 1150 1155

Gly Cys Gly Gly Gly Gly Ala Thr Gly Cys Ala Thr Thr Ala Cys
1160 1165 1170

Cys Thr Gly Cys Ala Thr Gly Thr Cys Ala Cys Cys Cys Thr Gly
1175 1180 1185

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1190 1195 1200

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1220 1225 1230

Ala Thr Cys Gly Ala Cys Cys Cys Thr Gly Thr Gly Ala Ala Gly
1235 1240 1245

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1325 1330 1335

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1355						1360					1365			
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1385						1390					1395			
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1400						1405					1410			
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1415						1420					1425			
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1430						1435					1440			
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1445						1450					1455			
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1460						1465					1470			
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1475						1480					1485			
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1490						1495					1500			
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Ala Ala 1580	Gly Thr Cys Cys	Ala 1585	Ala Ala Thr Cys	Thr Gly Cys Gly 1590
Ala Gly 1595	Thr Thr Thr Thr	Ala 1600	Ala Gly Gly Ala	Gly Thr Cys Cys 1605
Thr Ala 1610	Cys Ala Thr Gly	Gly 1615	Cys Thr Ala Cys	Ala Thr Thr Thr 1620
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Gly Ala 1640	Gly Cys Ala Gly	Ala 1645	Ala Ala Thr Ala	Thr Gly Cys Thr 1650
Gly Ala 1655	Thr Gly Cys Gly	Gly 1660	Thr Gly Ala Ala	Gly Ala Ala Cys 1665
Thr Thr 1670	Cys Thr Thr Gly	Gly 1675	Ala Thr Cys Thr	Gly Ala Thr Thr 1680
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Gly Thr 1715	Thr Gly Ala Gly	Cys 1720	Ala Gly Cys Cys	Cys Ala Thr Cys 1725
Gly Thr 1730	Gly Cys Thr Thr	Ala 1735	Ala Ala Gly Ala	Ala Gly Gly Gly 1740
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Cys Gly 1775	Cys Thr Thr Thr	Gly 1780	Gly Gly Ala Thr	Gly Ala Ala Gly 1785

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1805						1810					1815			
Ala	Ala	Cys	Cys	Ala	Thr	Gly	Ala	Ala	Thr	Thr	Thr	Ala	Cys	Cys
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1835						1840					1845			
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1925						1930					1935			
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2000						2005					2010			

Cys 2015	Thr	Cys	Ala	Cys	Cys	Ala 2020	Ala	Ala	Gly	Thr	Gly 2025	Ala	Gly	Cys
Cys 2030	Ala	Gly	Thr	Gly	Cys	Ala 2035	Ala	Cys	Cys	Ala	Gly 2040	Ala	Ala	Gly
Cys 2045	Gly	Cys	Cys	Thr	Cys	Ala 2050	Cys	Cys	Gly	Thr	Cys 2055	Thr	Ala	Cys
Cys 2060	Ala	Cys	Cys	Cys	Gly	Thr 2065	Cys	Cys	Gly	Cys	Cys 2070	Thr	Ala	Cys
Cys 2075	Thr	Gly	Ala	Gly	Cys	Gly 2080	Gly	Cys	Cys	Ala	Cys 2085	Thr	Gly	Gly
Cys 2090	Thr	Gly	Thr	Gly	Cys	Thr 2095	Gly	Thr	Ala	Gly	Gly 2100	Gly	Cys	Gly
Cys 2105	Cys	Ala	Thr	Cys	Cys	Gly 2110	Ala	Cys	Thr	Cys	Gly 2115	Gly	Cys	Thr
Cys 2120	Cys	Gly	Gly	Gly	Cys	Thr 2125	Gly	Cys	Thr	Cys	Gly 2130	Cys	Cys	Cys
Thr 2135	Gly	Cys	Ala	Cys	Thr	Gly 2140	Gly	Cys	Gly	Gly	Cys 2145	Cys	Thr	Cys
Cys 2150	Cys	Ala	Gly	Cys	Cys	Ala 2155	Ala	Cys	Ala	Thr	Cys 2160	Cys	Ala	Gly
Cys 2165	Thr	Gly	Gly	Ala	Cys	Ala 2170	Thr	Thr	Gly	Ala	Thr 2175	Gly	Gly	Gly
Gly 2180	Ala	Cys	Cys	Gly	Thr	Gly 2185	Ala	Gly	Ala	Cys	Gly 2190	Gly	Ala	Gly
Cys 2195	Gly	Thr	Ala	Thr	Cys	Thr 2200	Ala	Cys	Thr	Cys	Cys 2205	Cys	Thr	Cys
Thr 2210	Thr	Cys	Ala	Ala	Cys	Thr 2215	Thr	Gly	Thr	Ala	Cys 2220	Ala	Thr	Gly
Ala 2225	Gly	Cys	Ala	Ala	Gly	Cys 2230	Thr	Gly	Gly	Ala	Gly 2235	Ala	Ala	Gly

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2255						2260					2265			
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Cys	Ala	Gly	Gly	Ala	Gly	Gly	Ala	Gly	Thr	Ala	Thr	Thr	Cys	Gly
2285						2290					2295			
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2315						2320					2325			
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2330						2335					2340			
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2345						2350					2355			
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Cys	Ala	Gly	Gly	Ala	Gly	Cys	Ala	Cys	Gly	Cys	Cys	Cys	Ala	Gly
2375						2380					2385			
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Thr	Ala	Thr	Gly	Gly	Ala	Ala	Gly	Cys	Cys	Ala	Gly	Gly	Ala	Gly
2420						2425					2430			
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2435						2440					2445			
Ala	Ala	Gly	Ala	Gly	Cys	Thr	Thr	Cys	Cys	Ala	Gly	Ala	Ala	Cys
2450						2455					2460			

Thr Ala Cys Ala Thr Cys Cys Gly Gly Cys Ala Gly Cys Ala Gly
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<400> 17

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Val Lys Thr Asp Met Glu Lys Leu Thr Phe Tyr Ala Val Ser Ala Pro
 35 40 45

Glu Lys Leu Asp Arg Ile Gly Ser Tyr Leu Ala Glu Arg Leu Ser Arg
 50 55 60

Asp Val Val Arg His Arg Ser Gly Tyr Val Leu Ile Ala Met Glu Ala
 65 70 75 80

Leu Asp Gln Leu Leu Met Ala Cys His Ser Gln Ser Ile Lys Pro Phe
 85 90 95

Val Glu Ser Phe Leu His Met Val Ala Lys Leu Leu Glu Ser Gly Glu
 100 105 110

Pro Lys Leu Gln Val Leu Gly Thr Asn Ser Phe Val Lys Phe Ala Asn
 115 120 125

Ile Glu Glu Asp Thr Pro Ser Tyr His Arg Arg Tyr Asp Phe Phe Val
 130 135 140

Ser Arg Phe Ser Ala Met Cys His Ser Cys His Ser Asp Pro Glu Ile
 145 150 155 160

Arg Thr Glu Ile Arg Ile Ala Gly Ile Arg Gly Ile Gln Gly Val Val
 165 170 175

Arg Lys Thr Val Asn Asp Glu Leu Arg Ala Thr Ile Trp Glu Pro Gln
 180 185 190

His Met Asp Lys Ile Val Pro Ser Leu Leu Phe Asn Met Gln Lys Ile
 195 200 205

Glu Glu Val Asp Ser Arg Ile Gly Pro Pro Ser Ser Pro Ser Ala Thr
 210 215 220

Asp Lys Glu Glu Asn Pro Ala Val Leu Ala Glu Asn Cys Phe Arg Glu
 225 230 235 240

Leu Leu Gly Arg Ala Thr Phe Gly Asn Met Asn Asn Ala Val Arg Pro
 245 250 255

Val Phe Ala His Leu Asp His His Lys Leu Trp Asp Pro Asn Glu Phe
 260 265 270

Ala Val His Cys Phe Lys Ile Ile Met Tyr Ser Ile Gln Ala Gln Tyr
 275 280 285

Ser His His Val Ile Gln Glu Ile Leu Gly His Leu Asp Ala Arg Lys
 290 295 300

Lys Asp Ala Pro Arg Val Arg Ala Gly Ile Ile Gln Val Leu Leu Glu
 305 310 315 320

Ala Val Ala Ile Ala Ala Lys Gly Ser Ile Gly Pro Thr Val Leu Glu
 325 330 335

Val Phe Asn Thr Leu Leu Lys His Leu Arg Leu Ser Val Glu Phe Glu
 340 345 350

Ala Asn Asp Leu Gln Gly Gly Ser Val Gly Ser Val Asn Leu Asn Thr
 355 360 365

Ser Ser Lys Asp Asn Asp Glu Lys Ile Val Gln Asn Ala Ile Ile Gln
 370 375 380

Thr Ile Gly Phe Phe Gly Ser Asn Leu Pro Asp Tyr Gln Arg Ser Glu
 385 390 395 400

Ile Met Met Phe Ile Met Gly Lys Val Pro Val Phe Gly Thr Ser Thr
 405 410 415

His Thr Leu Asp Ile Ser Gln Leu Gly Asp Leu Gly Thr Arg Arg Ile
 420 425 430

Gln Ile Met Leu Leu Arg Ser Leu Leu Met Val Thr Ser Gly Tyr Lys
 435 440 445

Ala Lys Thr Ile Val Thr Ala Leu Pro Gly Ser Phe Leu Asp Pro Leu
 450 455 460

Leu Ser Pro Ser Leu Met Glu Asp Tyr Glu Leu Arg Gln Leu Val Leu
 465 470 475 480

Glu Val Met His Asn Leu Met Asp Arg His Asp Asn Arg Ala Lys Leu
 485 490 495

Arg Gly Ile Arg Ile Ile Pro Asp Val Ala Asp Leu Lys Ile Lys Arg
 500 505 510

Glu Lys Ile Cys Arg Gln Asp Thr Ser Phe Met Lys Lys Asn Gly Gln
 515 520 525

Gln Leu Tyr Arg His Ile Tyr Leu Gly Cys Lys Glu Glu Asp Asn Val
 530 535 540

Gln Lys Asn Tyr Glu Leu Leu Tyr Thr Ser Leu Ala Leu Ile Thr Ile
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Glu Leu Ala Asn Glu Glu Val Val Ile Asp Leu Ile Arg Leu Ala Ile
 565 570 575

Ala Leu Gln Asp Ser Ala Ile Ile Asn Glu Asp Asn Leu Pro Met Phe
 580 585 590

His Arg Cys Gly Ile Met Ala Leu Val Ala Ala Tyr Leu Asn Phe Val
 595 600 605

Ser Gln Met Ile Ala Val Pro Ala Phe Cys Gln His Val Ser Lys Val
 610 615 620

Ile Glu Ile Arg Thr Met Glu Ala Pro Tyr Phe Leu Pro Glu His Ile
 625 630 635 640

Phe Arg Asp Lys Cys Met Leu Pro Lys Ser Leu Glu Lys His Glu Lys
645 650 655

Asp Leu Tyr Phe Leu Thr Asn Lys Ile Ala Glu Ser Leu Gly Gly Ser
660 665 670

Gly Tyr Ser Val Glu Arg Leu Ser Val Pro Tyr Val Pro Gln Val Thr
675 680 685

Asp Glu Asp Arg Leu Ser Arg Arg Lys Ser Ile Val Asp Thr Val Ser
690 695 700

Ile Gln Val Asp Ile Leu Ser Asn Asn Val Pro Ser Asp Asp Val Val
705 710 715 720

Ser Asn Thr Glu Glu Ile Thr Phe Glu Ala Leu Lys Lys Ala Ile Asp
725 730 735

Thr Ser Gly Met Glu Glu Gln Glu Lys Glu Lys Arg Arg Leu Val Ile
740 745 750

Glu Lys Phe Gln Lys Ala Pro Phe Glu Glu Ile Ala Ala Gln Cys Glu
755 760 765

Ser Lys Ala Asn Leu Leu His Asp Arg Leu Ala Gln Ile Leu Glu Leu
770 775 780

Thr Ile Arg Pro Pro Pro Ser Pro Ser Gly Thr Leu Thr Ile Thr Ser
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Gly His Ala Gln Tyr Gln Ser Val Pro Val Tyr Glu Met Lys Phe Pro
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Asp Leu Cys Val Tyr
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<211> 2466

<212> DNA

<213> Homo sapiens

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<400> 19

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Ser Cys Arg Phe Tyr Ser Gly Ser Ala Thr Leu Ser Lys Val Glu Gly
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Thr Asp Val Thr Gly Ile Glu Glu Val Val Ile Pro Lys Lys Lys Thr
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Trp Asp Lys Val Ala Val Leu Gln Ala Leu Ala Ser Thr Val Asn Arg
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Asp Thr Thr Ala Val Pro Tyr Val Phe Gln Asp Asp Pro Tyr Leu Met
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Pro Ala Ser Ser Leu Glu Ser Arg Ser Phe Leu Leu Ala Lys Lys Ser
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Gln Lys Asp Ile Ala Glu Pro His Ile Pro Cys Leu Met Pro Glu Tyr
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Phe Glu Arg Gln Ile Lys Asp Ile Ser Glu Ala Ala Leu Lys Glu Arg
 145 150 155 160

Ile Glu Leu Arg Lys Val Lys Ala Ser Val Asp Met Phe Asp Gln Leu
 165 170 175

Leu Gln Ala Gly Thr Thr Val Ser Leu Glu Thr Thr Asn Ser Leu Leu
 180 185 190

Asp Leu Leu Cys Tyr Tyr Gly Asp Gln Glu Pro Ser Thr Asp Tyr His
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Phe Gln Gln Thr Gly Gln Ser Glu Ala Leu Glu Glu Glu Asn Asp Glu
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Thr Ser Arg Arg Lys Ala Gly His Gln Phe Gly Val Thr Trp Arg Ala
 225 230 235 240

Lys Asn Asn Ala Glu Arg Ile Phe Ser Leu Met Pro Glu Lys Asn Glu
 245 250 255

His Ser Tyr Cys Thr Met Ile Arg Gly Met Val Lys His Arg Ala Tyr
 260 265 270

Glu Gln Ala Leu Asn Leu Tyr Thr Glu Leu Leu Asn Asn Arg Leu His
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Ala Asp Val Tyr Thr Phe Asn Ala Leu Ile Glu Ala Thr Val Cys Ala
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Ile Asn Glu Lys Phe Glu Glu Lys Trp Ser Lys Ile Leu Glu Leu Leu
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Arg His Met Val Ala Gln Lys Val Lys Pro Asn Leu Gln Thr Phe Asn
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Thr Ile Leu Lys Cys Leu Arg Arg Phe His Val Phe Ala Arg Ser Pro
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Ala Leu Gln Val Leu Arg Glu Met Lys Ala Ile Gly Ile Glu Pro Ser
 355 360 365

Leu Ala Thr Tyr His His Ile Ile Arg Leu Phe Asp Gln Pro Gly Asp
 370 375 380

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Tyr Gln Val His Gly Leu Leu Lys Thr Gly Asp Asn Trp Lys Phe Ile
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Gly Pro Asp Gln His Arg Asn Phe Tyr Tyr Ser Lys Phe Phe Asp Leu
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Trp Lys Asp Ser Lys Glu Tyr Gly His Thr Phe Arg Ser Asp Leu Arg
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Glu Glu Ile Leu Met Leu Met Ala Arg Asp Lys His Pro Pro Glu Leu
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Ser Gln Pro Ile Arg Gln Thr Ala Gln Asp Trp Pro Ala Thr Ser Leu
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Asn Cys Ile Ala Ile Leu Phe Leu Arg Ala Gly Arg Thr Gln Glu Ala
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Trp Lys Met Leu Gly Leu Phe Arg Lys His Asn Lys Ile Pro Arg Ser
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Glu Leu Leu Asn Glu Leu Met Asp Ser Ala Lys Val Ser Asn Ser Pro
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Ser Gln Ala Ile Glu Val Val Glu Leu Ala Ser Ala Phe Ser Leu Pro
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Ile Cys Glu Gly Leu Thr Gln Arg Val Met Ser Asp Phe Ala Ile Asn
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